

FD-500

SAFETY CHECK-OUT

LEAKAGE CURRENT REMOVAL
NOTE: ON THE VIDEOPHONE CAR REMOVER

SERVICE MANUAL

US Model



SPECIFICATIONS

TV standard	American TV standard				
Channel coverage	VHF channels 2-13 UHF channels 14-69				
Radio frequency range	FM 87.6-108 MHz AM 530-1,605 kHz				
Antenna	VHF/UHF/FM: telescopic antenna AM: Built-in ferrite bar antenna				
Picture tube	4.5-inch picture measured diagonally				
Input	EXT ANT: minijack, 75 ohms				
Output	EARPHONE: minijack, impedance 8-300 ohms				
Speaker	Full range ø 10 cm (ø 4 inches)				
Power requirements	120 V AC, 60 Hz or 12 V DC				
Battery life	(approx. hrs.)				
			RADIO		
			AM	FM	
Batteries	TV	TV audio only			
Sony SUM-1 (NS)	1.5	10	25	25	
Sony alkaline AM1 (N)	5	30	70	70	
Power consumption	20 W (120 V AC) 11 W (12 V DC)				
Dimensions	Approx. 146 x 235 x 146 mm (w/h/d) (5 3/4 x 9 3/8 x 5 3/4 inches) excl. projecting parts and controls Approx. 156.5 x 241 x 159 mm (w/h/d) (6 1/4 x 9 1/2 x 6 3/8 inches)				
Weight	incl. projecting parts and controls Approx. 3 kg (6 lb 9 oz) incl. batteries				
Supplied accessory	AC power cord (1)				

FEATURES

- 4.5-inch black and white 90° deflection picture tube.
- FM/AM radio is combined.
- Built-in 4-inch dia. speaker with powerful output and good sound suitable for garden and kitchen use.
- Sound position enables listening to the TV sound only.
- Carrying handle for easy carrying.
- 3-way power source capability allows use in any situation.



BLACK AND WHITE
TV-FM/AM RECEIVER
SONY[®]

NOTE ON THE ANODE CAP REMOVAL

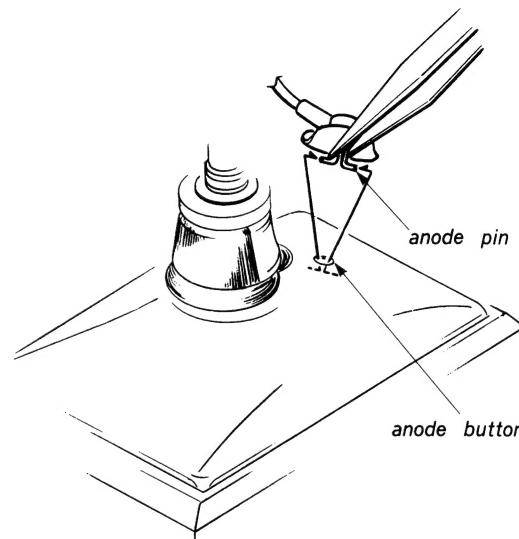
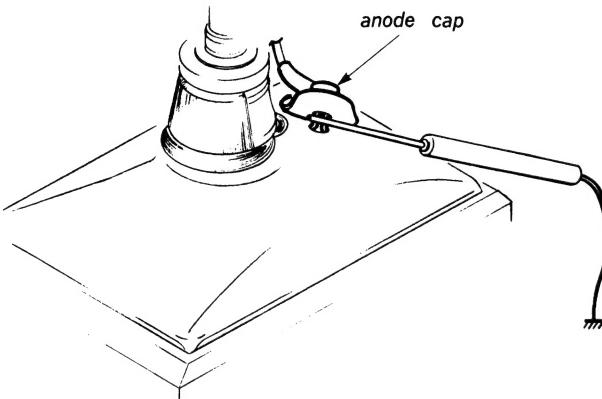
Even when the power switch is off, the voltage at the anode cap is still high.

Remove the anode cap as follows.

1. Discharge the anode pin to the ground.

2. Pinch and remove the anode pin with a pair of tweezers.

At this time, be careful not to scratch the anode button.

**Caution on Reinstallation:**

Confirm that the anode button is inserted into the anode cap securely.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ▲ OR DOTTED LINE WITH MARK ▲ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any).
Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

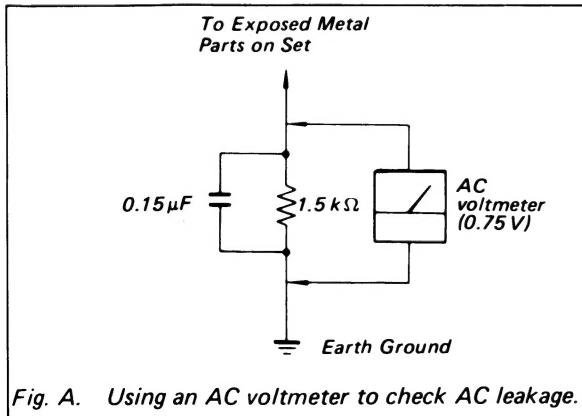


Fig. A. Using an AC voltmeter to check AC leakage.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60–100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

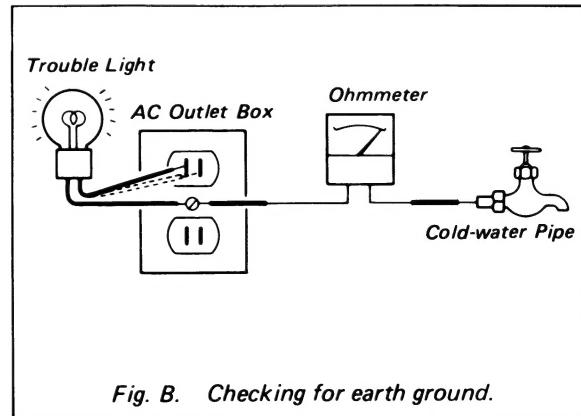
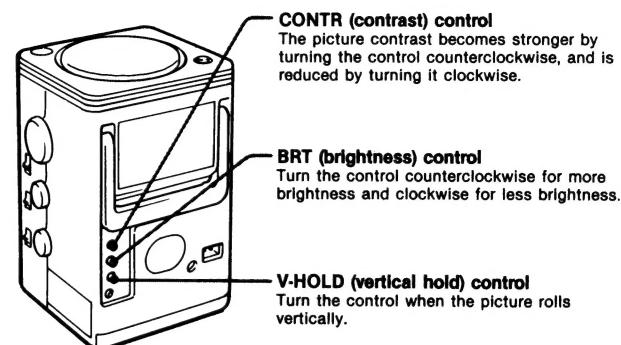
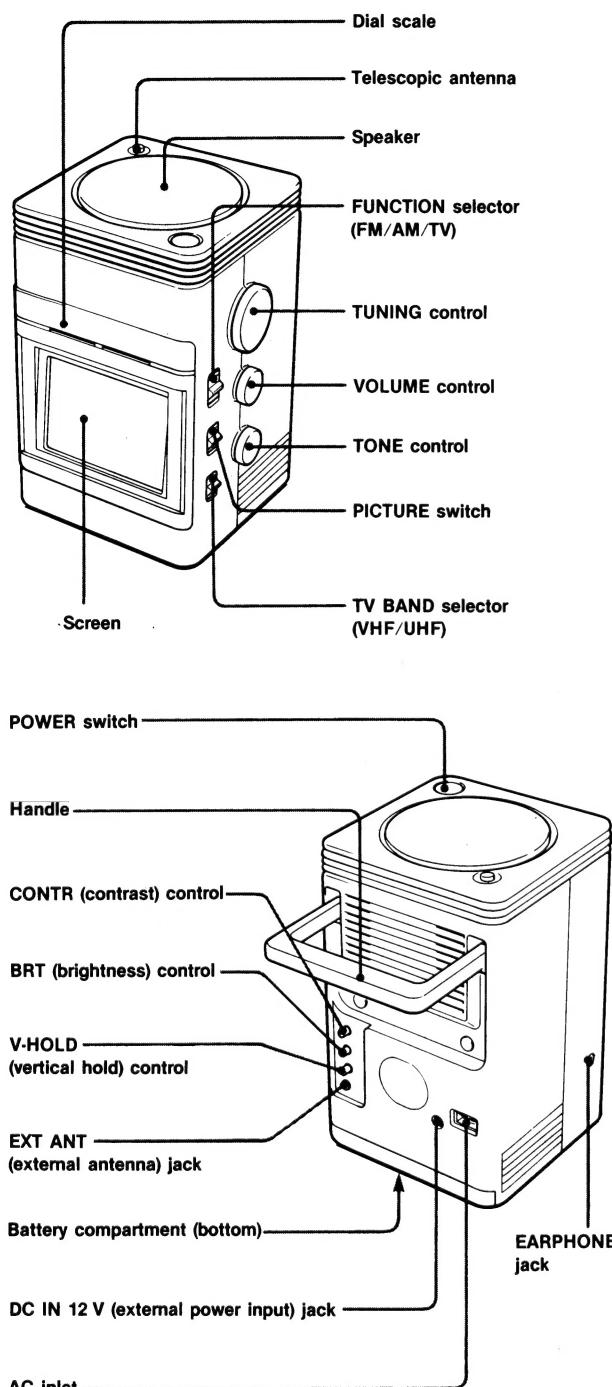


Fig. B. Checking for earth ground.

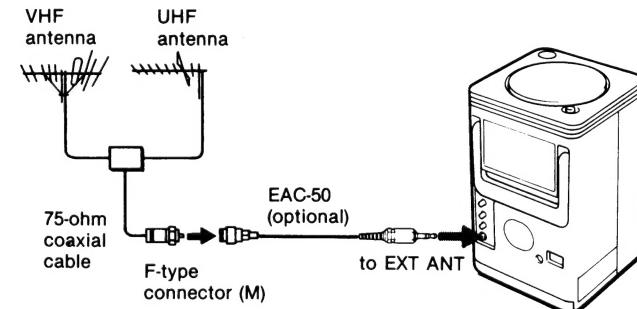
SECTION 1 GENERAL

LOCATION OF CONTROLS

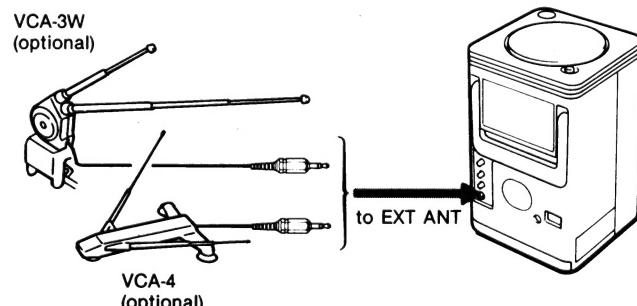


EXTERNAL ANTENNA CONNECTION

Outdoor antenna

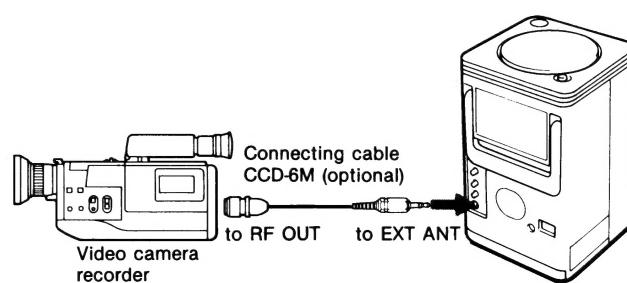


Car antenna



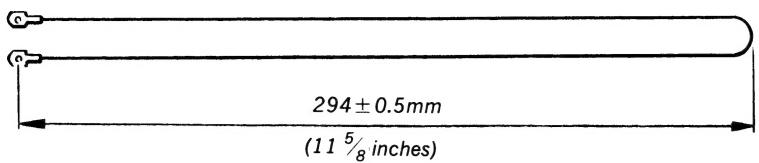
Monitoring the Video Camera Recorder

After connecting as illustrated, turn on the power of the equipments and tune in the channel 3 or 4.

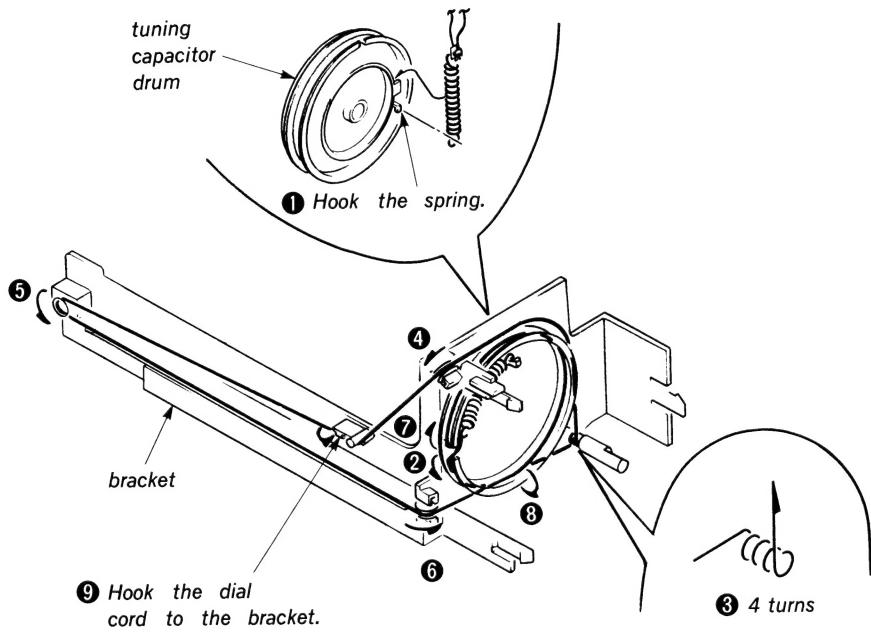


SECTION 2 DIAL CORD STRINGING

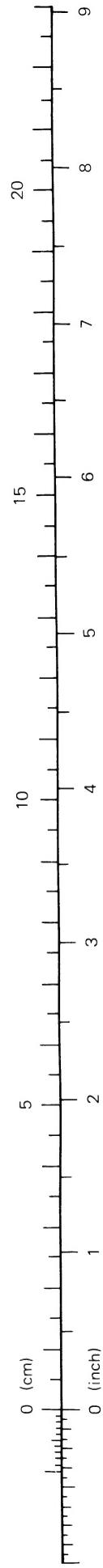
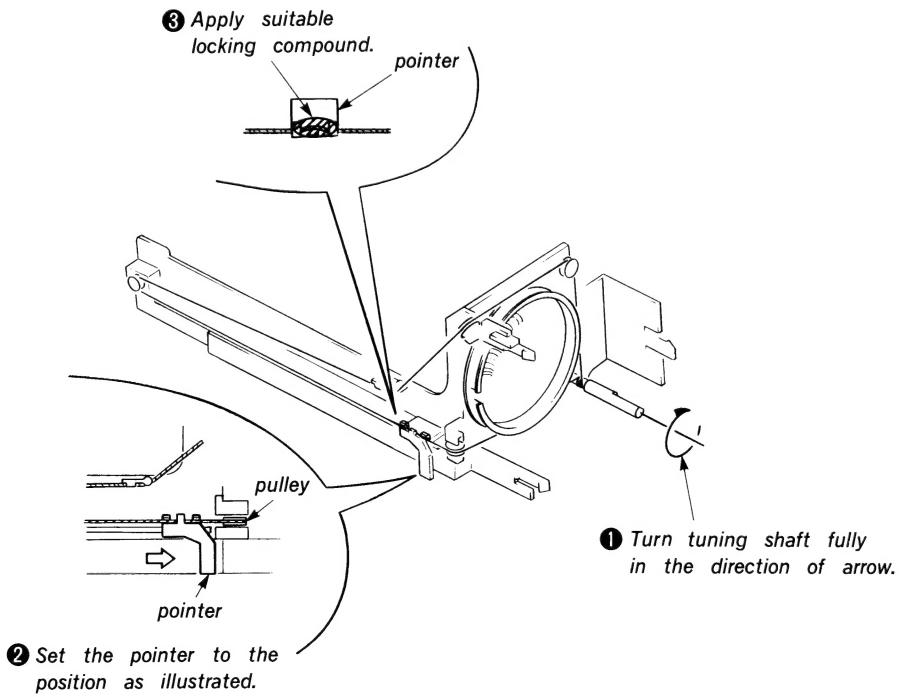
2-1. PREPARATION



2-2. STRINGING

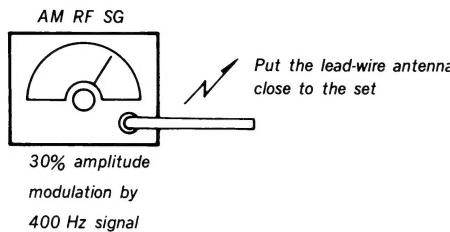


2-3. POINTER SETTING

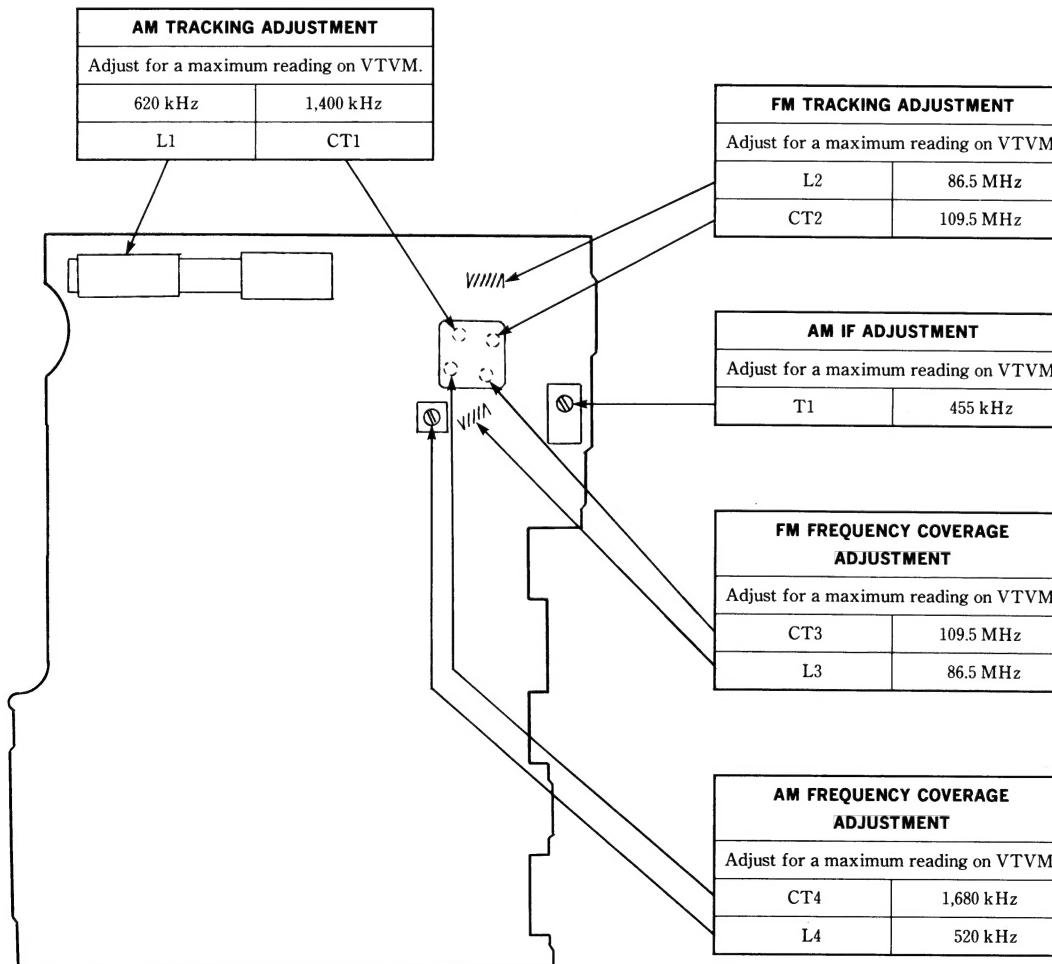
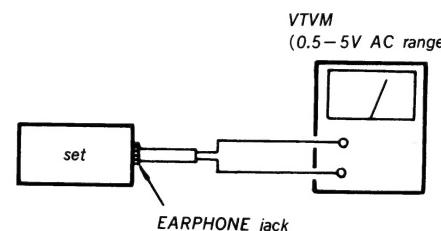
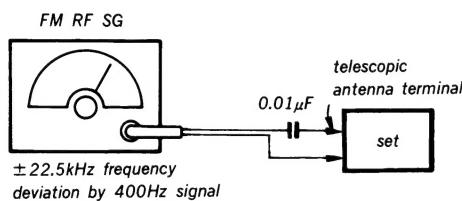


SECTION 3 ELECTRICAL ADJUSTMENTS

3-1. FM/AM SECTION

AM

- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

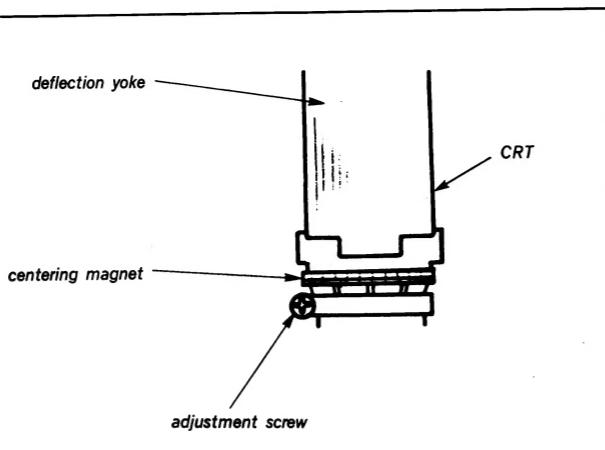
FM

A BOARD (COMPONENT SIDE)

3-2. TV SECTION

Centering Adjustment

1. Tune in an off-air signal.
2. Adjust the centering magnet so that the picture is in the center.
3. After the adjustment, lock the magnets with suitable locking compound.

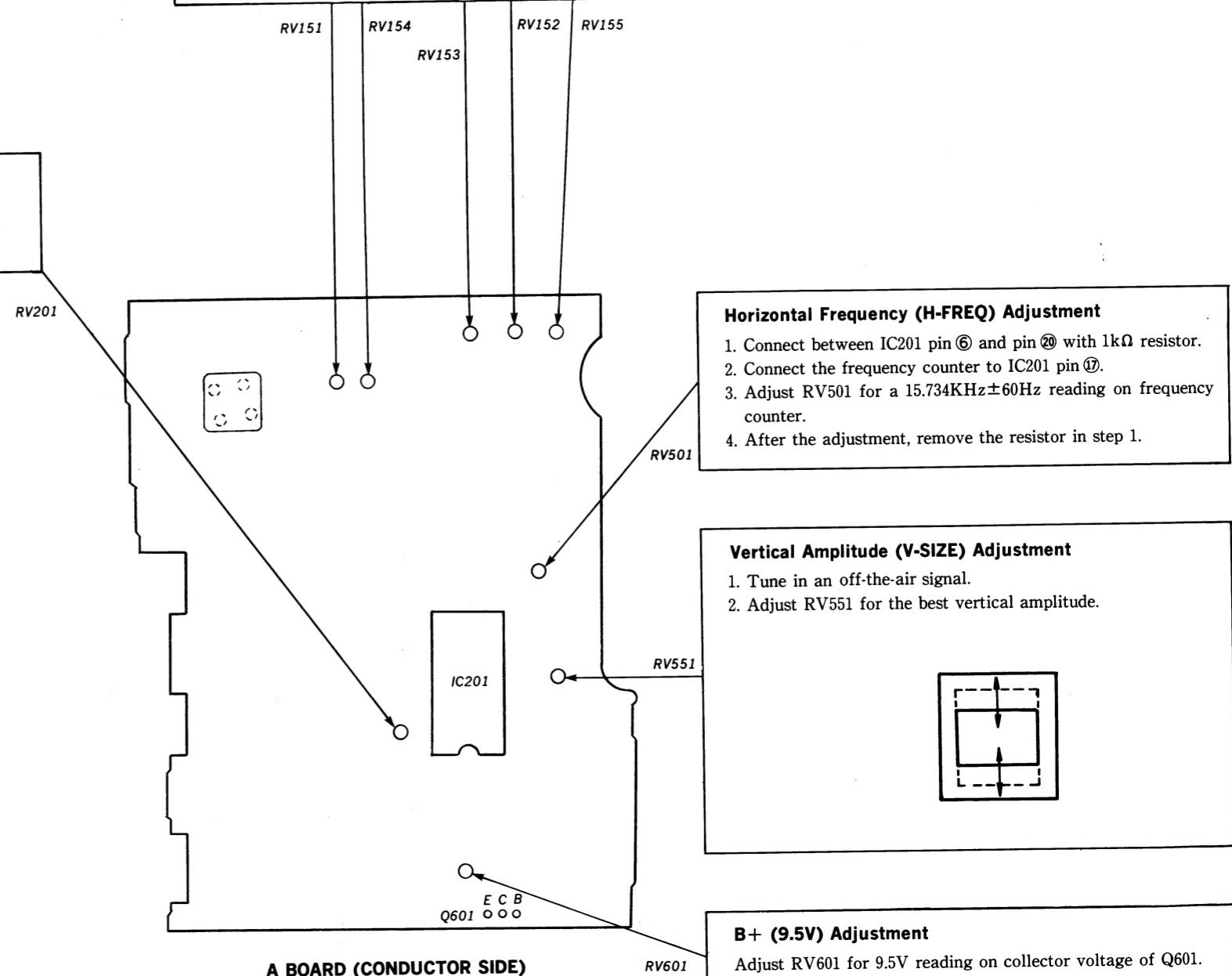
**Channel Display Adjustment**

1. Set the TV BAND switch to VHF.
2. Turn the TUNING knob, set the dial pointer to the letter "2" on dial scale.
Adjust RV155 for the optimum picture... (V.L.START)
3. Turn the TUNING knob, set the dial pointer to the letter "6" on dial scale.
Adjust RV151 for the optimum picture... (V.L.END)
4. Turn the TUNING knob, set the dial pointer to the letter "7" on dial scale.
Adjust RV154 for the optimum picture... (V.H.START)
5. Turn the TUNING knob, set the dial pointer to the letter "13" on dial scale.
Adjust RV152 for the optimum picture... (V.H.END)

6. When tuning in all the off-the-air signals (VHF CH2 -13) capable of receiving, make sure that the dial pointer is correctly set to the dial scale.
7. Set the TV BAND switch to UHF.
8. Turn the TUNING knob, set the dial pointer to the letter "69" on dial scale.
Adjust RV153 for the optimum picture... (U. END)
9. When tuning in all the off-the-air signals (UHF CH14 -69) capable of receiving, make sure that the pointer is correctly set to the dial scale.

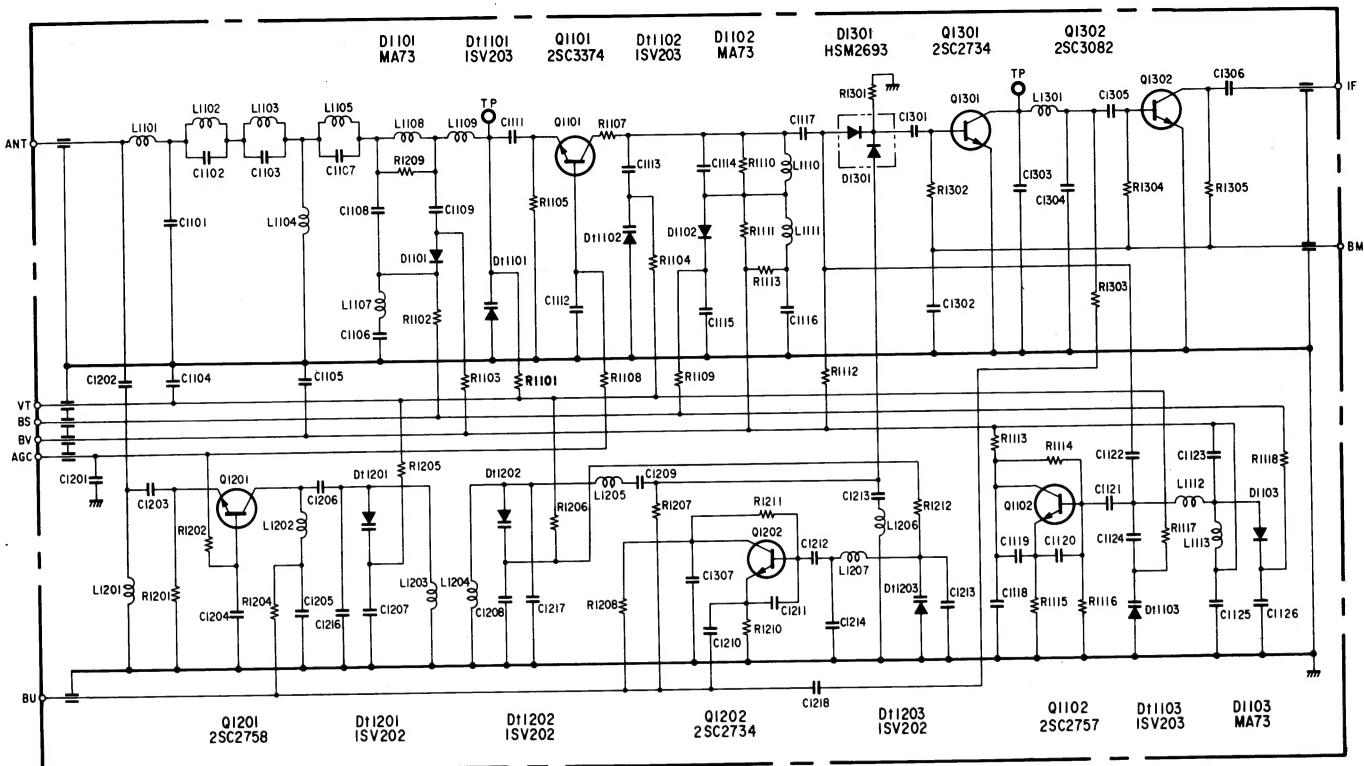
RF AGC Adjustment

1. Tune in an off-the-air signal.
2. Adjust RV201 so that snow noise disappears from the picture.



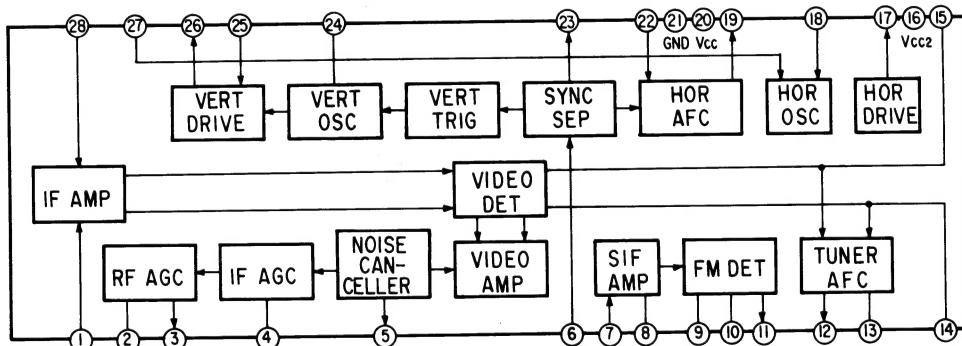
SECTION 4 DIAGRAMS

4-1. UHF/VHF TUNER UNIT SCHEMATIC DIAGRAM

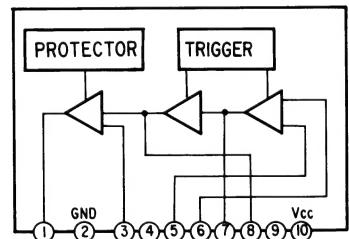


4-2. IC BLOCK DIAGRAM

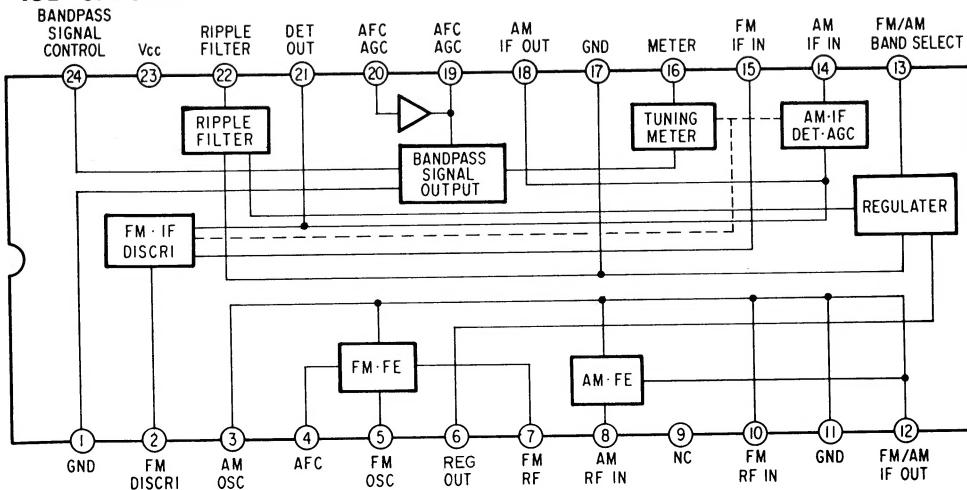
• IC201 AN5151N



• IC451 BA532



• IC1 CX20111



Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: $\mu\mu\text{F}$
- 50WV or less are not indicated except for electrolytics and tantalums.

- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.

- \triangle : internal component.
- \square : nonflammable resistor.

- Switch

Ref. No.	Switch	Position
S1	FUNCTION	FM
S151	TV BAND	VHF
S601	POWER	OFF
S602	PICTURE	OFF

- \square : adjustment for repair.
- Power voltage is dc 12V and fed with regulated dc power supply from external power voltage jack.

no mark : FM

() : AM

< > : VHF

[] : UHF

- Voltages are taken with a VOM (50 k Ω /V).
- Voltage variations may be noted due to normal production tolerances.

- Waveforms are taken with a oscilloscope.
- Voltage variations may be noted due to normal production tolerances.

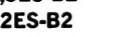
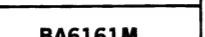
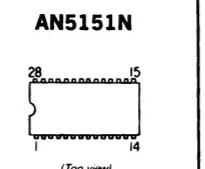
- Signal path.

\Rightarrow : FM

\Rightarrow : TV(AUDIO)

\Rightarrow : TV(VIDEO)

• Semiconductor Lead Layouts



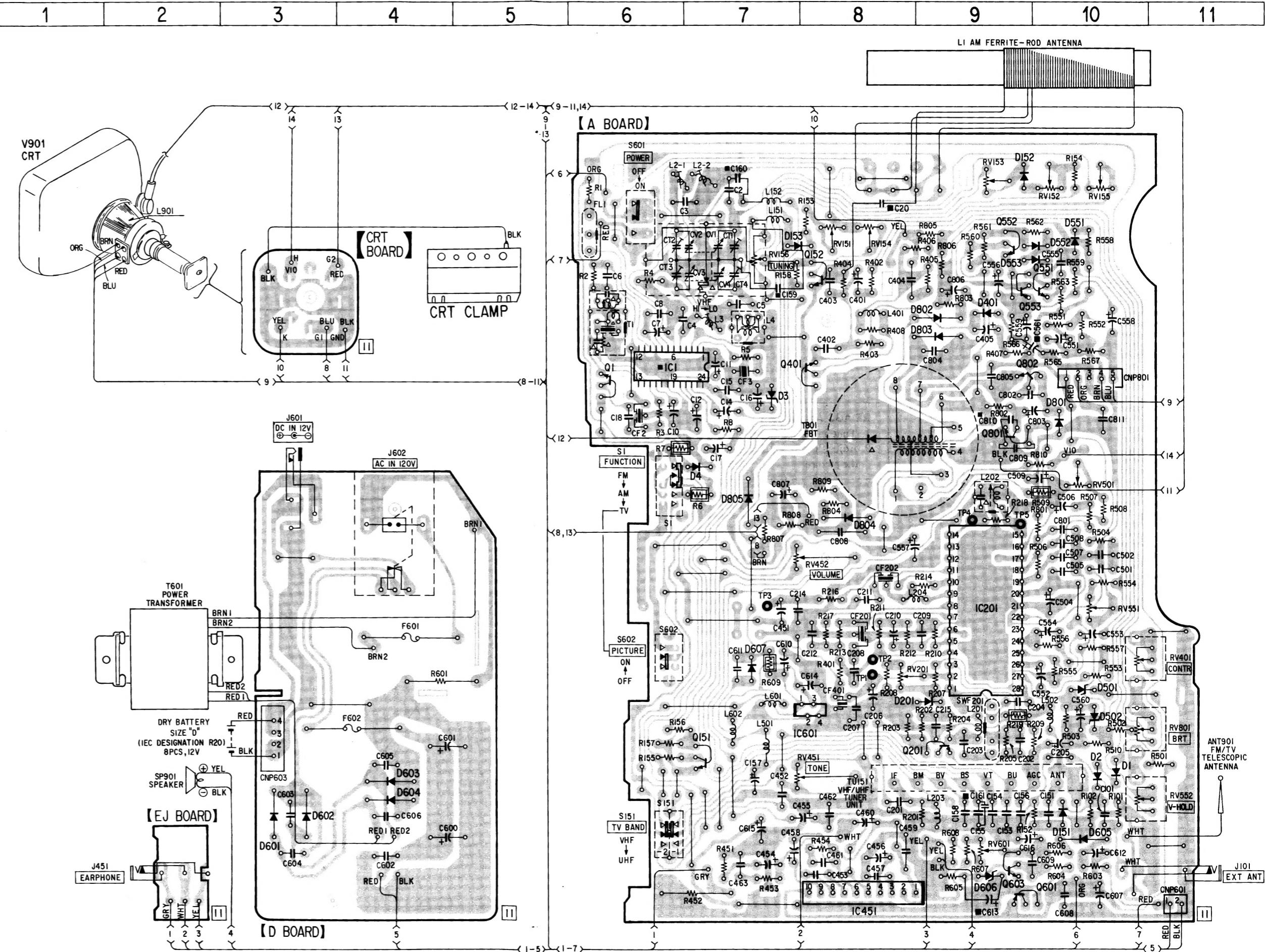
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D1	G-10	IC1	C-6
D2	G-10	IC201	F-9
D3	D-7	IC451	H-8
D4	D-7	IC601	F-8
D151	G-10	Q1	D-6
D152	B-9	Q151	G-7
D153	B-7	Q152	C-8
D201	F-9	Q201	G-9
D501	F-10	Q401	C-8
D502	F-10	Q551	C-10
D551	B-10	Q552	B-9
D552	B-10	Q553	C-9
D553	C-10	Q601	H-9
D601	G-3	Q603	H-9
D602	G-3	Q801	D-9
D603	G-4	Q802	D-9
D604	G-4		
D605	H-10		
D607	F-7		
D801	D-10		
D802	C-9		
D803	C-9		
D804	E-8		
D805	E-7		

• Note on Mounting Diagram:

- \circ : parts extracted from the component side.
- \blacksquare : parts mounted on the conductor side.
- [] indicates side identified with part number.

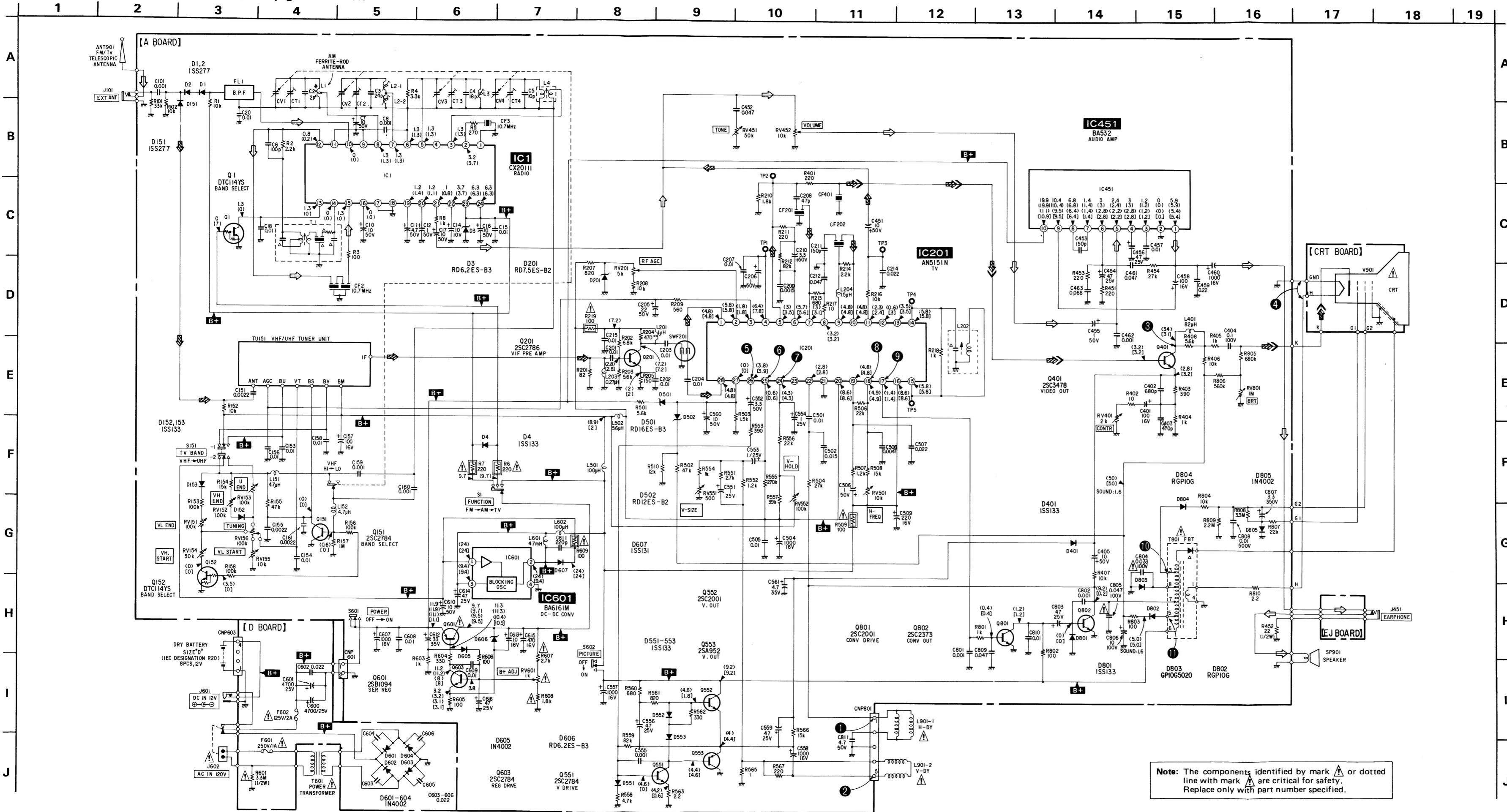
4-3. PRINTED WIRING BOARDS



4-4. SCHEMATIC DIAGRAM

- Refer to page 9 for IC BLOCK DIAGRAM.
- Refer to page 10 for Note.

FD-500 FD-500



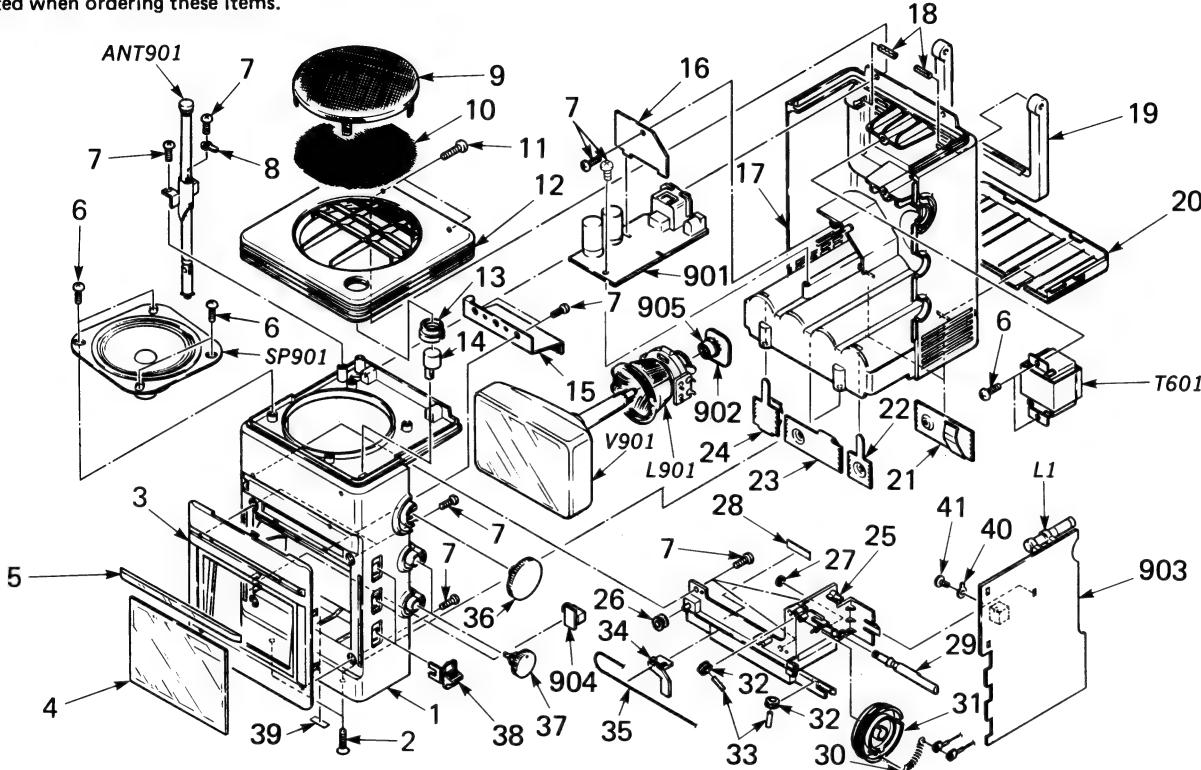
SECTION 5 EXPLODED VIEW

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked “★” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts Example:**
(RED) ... KNOB, BALANCE (WHITE)
↑ ↑
Cabinet's Color Parts Color

The components identified by mark **▲** or dotted line with mark **△** are critical for safety.
Replace only with part number specified.



Ref.No	Part No.	Description	Remark	Ref.No	Part No.	Description	Remark
1	3-345-525-01	(BLACK)CABINET (FRONT)		27	7-624-106-04	STOP RING 3.0, TYPE -E	
1	3-345-525-11	(GRAY)CABINET (FRONT)		28	3-314-062-00	LABEL, CAUTION, SERVICE	
1	3-345-525-21	(RED)CABINET (FRONT)		29	*3-345-503-01	SHAFT, TUNING	
2	7-685-261-14	SCREW +KTP 4X12 TYPE2 NON-SLIT		30	3-564-949-00	SPRING, TENSION	
3	3-345-522-01	PANEL, FRONT		31	*3-345-516-01	DRUM, TUNING CAPACITOR	
4	3-345-511-01	FILTER		32	*3-881-911-00	PULLEY	
5	3-345-512-01	WINDOW, DIAL		33	*3-703-358-53	PIN, PARALLEL (DIA. 2X8)	
6	7-685-160-11	SCREW +P 4X10 TYPE2 NON-SLIT		34	*3-345-509-01	POINTER	
7	7-685-646-79	SCREW +P 3X8 TYPE2 NON-SLIT		35	9-911-825-32	STRING DIAL 0.3DIA	
8	7-623-508-01	LUG, 3		36	3-345-514-01	(BLACK)KNOB, TUNING	
9	3-345-518-01	GRILLE, SP		36	3-345-514-11	(GRAY)KNOB, TUNING	
10	3-345-501-01	NET, SP		36	3-345-514-21	(RED)KNOB, TUNING	
11	7-685-883-04	SCREW +BVTT 4X12 (S)		37	3-345-510-01	(BLACK)KNOB, VOLUME	
12	3-345-520-01	COVER, TOP		37	3-345-510-11	(GRAY)KNOB, VOLUME	
13	3-345-513-01	RING		37	3-345-510-21	(RED)KNOB, VOLUME	
14	3-345-517-01	BUTTON, POWER		38	3-345-524-01	(BLACK)KNOB, SWITCH	
15	*3-345-504-01	CLAMP, CRT		38	3-345-524-11	(GRAY)KNOB, SWITCH	
16	*3-345-502-01	INSULATOR		38	3-345-524-21	(RED)KNOB, SWITCH	
17	3-345-526-01	(BLACK)CABINET (REAR)		39	*3-701-999-00	LABEL, SERIAL NUMBER	
17	3-345-526-11	(GRAY)CABINET (REAR)		40	3-305-625-00	CAP, TUNING CAPACITOR	
17	3-345-526-21	(RED)CABINET (REAR)		41	3-714-118-01	SCREW (17X4)	
18	7-626-323-71	PIN, SPRING 4X22		901	*1-625-662-11	PC BOARD, D	
19	3-345-519-01	(BLACK, GRAY)HANDLE (GRAY)		902	*1-625-661-11	PC BOARD, CRT	
19	3-345-519-21	(RED)HANDLE (RED)		903	*A-3015-618-A	PC BOARD ASSY, A	
20	3-345-521-01	(BLACK)LID, BATTERY CASE		904	*1-625-660-11	PC BOARD, EJ	
20	3-345-521-11	(GRAY)LID, BATTERY CASE		905	1-526-736-00	SOCKET, CRT	
20	3-345-521-21	(RED)LID, BATTERY CASE		ANT901	1-501-405-11	ANTENNA, TELESCOPIC	
21	3-345-507-01	TERMINAL BOARD (B), BATTERY		L1	1-402-355-11	ANTENNA, FERRITE-ROD (AM)	
22	3-345-505-01	TERMINAL BOARD, PLUS		L901	△1-451-318-11	DEFLECTION YOKE	
23	3-345-508-01	TERMINAL BOARD (A), BATTERY		SP901	1-503-916-11	SPEAKER	
24	3-345-506-01	TERMINAL BOARD, MINUS		T601	△1-449-167-11	TRANSFORMER, POWER	
25	*3-345-523-01	BRACKET		V901	△1-546-069-11	CATHODE-RAY TUBE, B/W	
26	*3-304-108-00	PULLEY					

SECTION 6

ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked “★” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:MF: μ F, PF: $\mu\mu$ F.**RESISTORS**

- All resistors are in ohms.
- F: nonflammable

COILS

- MMH: mH, UH: μ H

SEMICONDUCTORS

In each case, U: μ A, for example:
 UA...: μ A..., UPA...: μ PA...,
 UPC...: μ PC, UPD...: μ PD...

The components identified by mark or dotted line with mark are critical for safety.
 Replace only with part number specified.

Ref.No	Part No.	Description			Remark	Ref.No	Part No.	Description			Remark
901	*1-625-662-11	PC BOARD, D				C403	1-102-114-00	CERAMIC	470PF	10%	50V
902	*1-625-661-11	PC BOARD, CRT				C404	1-106-220-00	MYLAR	0.1MF	5%	100V
903	*A-3015-618-A	PC BOARD ASSY, A				C405	1-123-875-11	ELECT	10MF	20%	50V
904	*1-625-660-11	PC BOARD, EJ				C451	1-123-875-11	ELECT	10MF	20%	50V
905	1-526-736-00	SOCKET, CRT				C452	1-130-491-00	MYLAR	0.047MF	5%	50V
						C453	1-101-361-00	CERAMIC	150PF	5%	50V
						C454	1-124-477-11	ELECT	47MF	20%	25V
ANT901 1-501-405-11 ANTENNA, TELESCOPIC											
	CAPACITOR					C455	1-124-499-11	ELECT	1MF	20%	50V
C2	1-102-935-00	CERAMIC	2PF	0.5PF	50V	C456	1-124-477-11	ELECT	47MF	20%	25V
C3	1-102-960-00	CERAMIC	24PF	5%	50V	C457	1-130-483-00	MYLAR	0.01MF	5%	50V
C4	1-102-953-00	CERAMIC	18PF	5%	50V	C458	1-126-101-11	ELECT	100MF	20%	16V
C5	1-102-947-00	CERAMIC	10PF	0.5PF	50V	C459	1-130-499-00	MYLAR	0.22MF	5%	50V
C6	1-102-973-00	CERAMIC	100PF	5%	50V	C460	1-124-360-00	ELECT	1000MF	20%	16V
C7	1-123-875-11	ELECT	10MF	20%	50V	C461	1-130-491-00	MYLAR	0.047MF	5%	50V
C8	1-102-074-00	CERAMIC	0.001MF	10%	50V	C462	1-102-074-00	CERAMIC	0.001MF	10%	50V
C10	1-123-875-11	ELECT	10MF	20%	50V	C463	1-130-493-00	MYLAR	0.068MF	5%	50V
C11	1-124-927-11	ELECT	4.7MF	20%	50V	C501	1-130-483-00	MYLAR	0.01MF	5%	50V
C12	1-124-499-11	ELECT	1MF	20%	50V	C502	1-130-485-00	MYLAR	0.015MF	5%	50V
C14	1-123-875-11	ELECT	10MF	20%	50V	C504	1-124-360-00	ELECT	1000MF	20%	16V
C15	1-101-004-00	CERAMIC	0.01MF	50V		C505	1-101-004-00	CERAMIC	0.01MF	50V	
C16	1-123-875-11	ELECT	10MF	20%	50V	C506	1-124-499-11	ELECT	1MF	20%	50V
C17	1-123-875-11	ELECT	10MF	20%	50V	C507	1-130-487-00	MYLAR	0.022MF	5%	50V
C18	1-101-004-00	CERAMIC	0.01MF	50V		C508	1-130-479-00	MYLAR	0.0047MF	5%	50V
C20	1-101-004-00	CERAMIC	0.01MF	50V		C509	1-124-120-11	ELECT	220MF	20%	16V
C101	1-102-074-00	CERAMIC	0.001MF	10%	50V	C551	1-131-347-00	TANTALUM	1MF	10%	25V
C151	1-102-121-00	CERAMIC	0.0022MF	10%	50V	C552	1-123-382-00	ELECT	3.3MF	20%	50V
C153	1-101-004-00	CERAMIC	0.01MF	50V		C553	1-131-347-00	TANTALUM	1MF	10%	25V
C154	1-101-004-00	CERAMIC	0.01MF	50V		C554	1-131-347-00	TANTALUM	1MF	10%	25V
C155	1-102-121-00	CERAMIC	0.0022MF	10%	50V	C555	1-102-074-00	CERAMIC	0.001MF	10%	50V
C156	1-101-004-00	CERAMIC	0.01MF	50V		C556	1-124-477-11	ELECT	47MF	20%	25V
C157	1-126-101-11	ELECT	100MF	20%	16V	C557	1-124-360-00	ELECT	1000MF	20%	16V
C158	1-101-004-00	CERAMIC	0.01MF	50V		C558	1-124-360-00	ELECT	1000MF	20%	16V
C159	1-102-074-00	CERAMIC	0.001MF	10%	50V	C559	1-124-477-11	ELECT	47MF	20%	25V
C160	1-102-074-00	CERAMIC	0.001MF	10%	50V	C560	1-123-875-11	ELECT	10MF	20%	50V
C161	1-102-121-00	CERAMIC	0.0022MF	10%	50V	C561	1-124-245-00	ELECT	4.7MF	20%	35V
C201	1-101-004-00	CERAMIC	0.01MF	50V		C600	1-124-564-11	ELECT	4700MF	20%	25V
C202	1-101-004-00	CERAMIC	0.01MF	50V		C601	1-124-564-11	ELECT	4700MF	20%	25V
C203	1-101-004-00	CERAMIC	0.01MF	50V		C602	1-101-005-00	CERAMIC	0.022MF	50V	
C204	1-101-004-00	CERAMIC	0.01MF	50V		C603	1-101-005-00	CERAMIC	0.022MF	50V	
C205	1-124-908-11	ELECT	22MF	20%	50V	C604	1-101-005-00	CERAMIC	0.022MF	50V	
C206	1-124-499-11	ELECT	1MF	20%	50V	C605	1-101-005-00	CERAMIC	0.022MF	50V	
C207	1-101-004-00	CERAMIC	0.01MF	50V		C606	1-101-005-00	CERAMIC	0.022MF	50V	
C208	1-101-880-00	CERAMIC	47PF	5%	50V	C607	1-124-360-00	ELECT	1000MF	20%	16V
C209	1-130-473-00	MYLAR	0.0015MF	5%	50V	C608	1-101-004-00	CERAMIC	0.01MF	50V	
C210	1-123-382-00	ELECT	3.3MF	20%	50V	C609	1-101-004-00	CERAMIC	0.01MF	50V	
C211	1-101-361-00	CERAMIC	150PF	5%	50V	C610	1-123-875-11	ELECT	10MF	20%	50V
C212	1-130-491-00	MYLAR	0.047MF	5%	50V	C611	1-102-110-00	CERAMIC	220PF	10%	50V
C214	1-130-487-00	MYLAR	0.022MF	5%	50V	C612	1-124-482-11	ELECT	33MF	20%	35V
C215	1-101-004-00	CERAMIC	0.01MF	50V		C613	1-131-365-00	TANTALUM	10MF	20%	16V
C401	1-126-101-11	ELECT	100MF	20%	16V	C614	1-124-477-11	ELECT	47MF	20%	25V
C402	1-102-116-00	CERAMIC	680PF	10%	50V	C615	1-126-103-11	ELECT	470MF	20%	16V
						C616	1-124-477-11	ELECT	47MF	20%	25V
						C801	1-102-074-00	CERAMIC	0.001MF	10%	50V

Ref.No	Part No.	Description	Remark		Ref.No	Part No.	Description	Remark	
C802	1-102-074-00	CERAMIC	0.001MF	10%	50V	L3	1-422-131-00	COIL, FM OSC	
C803	1-124-477-11	ELECT	47MF	20%	25V	L4	1-406-087-11	COIL, AM OSC	
C804	△ 1-106-379-12	MYLAR	0.033MF	5%	100V	L151	1-410-324-11	INDUCTOR	4.7UH
C805	△ 1-106-383-00	MYLAR	0.047MF	5%	100V	L152	1-410-324-11	INDUCTOR	4.7UH
C806	1-124-667-11	ELECT	10MF	20%	100V	L201	1-410-316-11	INDUCTOR	1UH
C807	1-123-006-00	ELECT	3.3MF		350V	L202	1-404-785-11	COIL, VIF DETECTOR	
C808	1-102-050-00	CERAMIC	0.01MF	99%	500V	L203	1-410-357-31	INDUCTOR	0.27UH
C809	1-130-491-00	MYLAR	0.047MF	5%	50V	L204	1-410-329-31	INDUCTOR	15UH
C810	1-101-004-00	CERAMIC	0.01MF		50V	L401	1-408-420-00	INDUCTOR	82UH
C811	1-123-453-00	ELECT	4.7MF	20%	50V	L501	1-408-575-00	INDUCTOR	100UH
CF2	} 1-567-097-61	FILTER, CERAMIC 10.7MHz				L502	1-408-572-00	INDUCTOR	56UH
CF3						L601	1-421-984-11	COIL, CHOKE	4.7MMH
CF201	1-567-115-00	FILTER, CERAMIC 4.5MHz				L602	1-410-334-11	INDUCTOR	100UH
CF202	1-577-066-11	FILTER,CERAMIC (DISCRIMINATOR) 4.5MHz				L901	△ 1-451-318-11	DEFLECTION YOKE	
CF401	1-409-370-00	TRAP, CERAMIC 4.5MHz							
CNP601	* 1-560-596-00	PIN, CONNECTOR 2P							
CNP603	* 1-560-598-00	PIN, CONNECTOR 4P							
CNP801	* 1-560-599-00	PIN, CONNECTOR 5P							
CV1-4	} 1-151-533-11	CAP, VAR, POLYETHYLENE (TUNING)							
CT1-4									
RV156									
D1	8-719-921-22	DIODE 1SS277							
D2	8-719-921-22	DIODE 1SS277							
D3	8-719-109-93	DIODE RD6.2ES-B2							
D4	8-719-901-33	DIODE 1SS133							
D151	8-719-921-22	DIODE 1SS277							
D152	8-719-901-33	DIODE 1SS133							
D153	8-719-901-33	DIODE 1SS133							
D201	8-719-110-03	DIODE RD7.5ES-B2							
D401	8-719-901-33	DIODE 1SS133							
D501	8-719-110-46	DIODE RD16ES-B3							
D502	8-719-110-31	DIODE RD12ES-B2							
D551	8-719-901-33	DIODE 1SS133							
D552	8-719-901-33	DIODE 1SS133							
D553	8-719-901-33	DIODE 1SS133							
D601	8-719-200-02	DIODE 10E2							
D602	8-719-200-02	DIODE 10E2							
D603	8-719-200-02	DIODE 10E2							
D604	8-719-200-02	DIODE 10E2							
D605	8-719-200-02	DIODE 10E2							
D606	8-719-109-93	DIODE RD6.2ES-B2							
D607	8-719-940-69	DIODE 1SS131							
D801	8-719-901-33	DIODE 1SS133							
D802	8-719-924-06	DIODE ERC24-06							
D803	1-808-394-11	DIODE GP10G5020							
D804	8-719-924-06	DIODE ERC24-06							
D805	8-719-200-02	DIODE 10E2							
F601	△ 1-532-872-11	FUSE, GLASS TUBE 250V 1A							
F602	△ 1-532-591-00	FUSE, GLASS TUBE 125V 2A							
FL1	1-235-171-00	FILTER, BAND PASS							
IC1	8-752-011-11	IC CX20111							
IC201	1-808-293-11	IC AN5151N							
IC451	1-808-312-11	IC BA532							
IC601	8-759-929-39	IC BA6161M							
J101	1-507-667-00	JACK (EXT ANT)							
J451	1-507-578-00	JACK (EARPHONE)							
J601	1-507-563-00	DC JACK (DC IN 12V)							
J602	△ 1-540-009-11	INLET, AC (AC IN 120V)							
L1	1-402-355-11	ANTENNA, FERRITE-MOD (AM)							
L2-1	* 1-426-074-00	COIL, FM RF							
L2-2	1-406-042-00	COIL, FM RF							
R210	1-249-420-11	CARBON	1.8K	5%	1/4W				
R211	1-249-409-11	CARBON	220	5%	1/4W				
R212	1-249-440-11	CARBON	82K	5%	1/4W				
R213	1-249-415-11	CARBON	680	5%	1/4W				
R214	1-249-421-11	CARBON	2.2K	5%	1/4W				
R216	1-249-429-11	CARBON	10K	5%	1/4W				
R217	1-249-393-11	CARBON	10	5%	1/4W				
R218	1-249-417-11	CARBON	1K	5%	1/4W				
R219	△ 1-249-405-11	CARBON	100	5%	1/4W				
R401	1-249-409-11	CARBON	220	5%	1/4W				
R402	1-249-393-11	CARBON	10	5%	1/4W				

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Ref.No	Part No.	Description	Remark	Ref.No	Part No.	Description	Remark
R403	1-249-412-11	CARBON	390 5% 1/4W	RV601	1-238-053-11	RES, ADJ, CARBON 1K	
R404	1-249-417-11	CARBON	1K 5% 1/4W	RV801	1-238-051-21	RES, VAR, CARBON 1M (BRT)	
R405	1-249-417-11	CARBON	1K 5% 1/4W	S1	1-554-061-00	SWITCH, SLIDE (FUNCTION)	
R406	1-249-429-11	CARBON	10K 5% 1/4W	S151	1-554-222-00	SWITCH, SLIDE (TV BAND)	
R407	1-249-429-11	CARBON	10K 5% 1/4W	S601	1-554-358-00	SWITCH, PUSH (POWER)	
R408	1-249-426-11	CARBON	5.6K 5% 1/4W	S602	1-554-222-00	SWITCH, SLIDE (PICTURE)	
R451	1-249-409-11	CARBON	220 5% 1/4W	SP901	1-503-916-11	SPEAKER	
R452	1-247-731-11	CARBON	22 5% 1/2W	SWF201	1-404-635-11	SAWF (DIP TYPE)	
R453	1-249-409-11	CARBON	220 5% 1/4W	T1	1-567-552-11	FILTER, AM CERAMIC	
R454	1-249-434-11	CARBON	27K 5% 1/4W	T601	△.1-449-167-11	TRANSFORMER, POWER	
R501	1-249-426-11	CARBON	5.6K 5% 1/4W	T801	△.1-439-422-11	TRANSFORMER ASSY, FLYBACK	
R502	1-249-437-11	CARBON	47K 5% 1/4W	TU151	1-463-973-11	TUNER UNIT	
R503	1-249-419-11	CARBON	1.5K 5% 1/4W	V901	△.1-546-069-11	CATHODE-RAY TUBE, B/W	
R504	1-249-434-11	CARBON	27K 5% 1/4W				
R506	1-249-433-11	CARBON	22K 5% 1/4W				
R507	1-249-418-11	CARBON	1.2K 5% 1/4W				
R508	1-249-431-11	CARBON	15K 5% 1/4W				
R509	△.1-249-405-11	CARBON	100 5% 1/4W				
R510	1-249-430-11	CARBON	12K 5% 1/4W				
R551	1-249-422-11	CARBON	2.7K 5% 1/4W				
R552	1-249-418-11	CARBON	1.2K 5% 1/4W				
R553	1-249-412-11	CARBON	390 5% 1/4W				
R554	1-249-417-11	CARBON	1K 5% 1/4W				
R555	1-247-889-00	CARBON	270K 5% 1/4W				
R556	1-249-433-11	CARBON	22K 5% 1/4W	△.1-558-834-11	CORD, POWER		
R557	1-249-436-11	CARBON	39K 5% 1/4W	* 3-345-529-01	CUSHION (LEFT) (RIGHT)		
R558	1-249-425-11	CARBON	4.7K 5% 1/4W	* 3-345-530-01	INDIVIDUAL CARTON		
R559	1-249-440-11	CARBON	82K 5% 1/4W	3-769-856-21	MANUAL, INSTRUCTION		
R560	1-249-415-11	CARBON	680 5% 1/4W				
R561	1-249-416-11	CARBON	820 5% 1/4W				
R562	1-249-411-11	CARBON	330 5% 1/4W				
R563	1-249-385-11	CARBON	2.2 5% 1/4W				
R565	1-249-381-11	CARBON	1 5% 1/4W				
R566	1-249-431-11	CARBON	15K 5% 1/4W				
R567	1-249-409-11	CARBON	220 5% 1/4W				
R601	△.1-202-725-00	SOLID	3.3M 10% 1/2W				
R603	1-249-417-11	CARBON	1K 5% 1/4W				
R604	1-249-411-11	CARBON	330 5% 1/4W				
R605	1-249-405-11	CARBON	100 5% 1/4W				
R606	1-249-405-11	CARBON	100 5% 1/4W				
R607	△.1-249-422-11	CARBON	2.7K 5% 1/4W				
R608	△.1-249-420-11	CARBON	1.8K 5% 1/4W				
R609	△.1-249-405-11	CARBON	100 5% 1/4W	F			
R801	1-249-417-11	CARBON	1K 5% 1/4W				
R802	1-249-405-11	CARBON	100 5% 1/4W				
R803	1-249-405-11	CARBON	100 5% 1/4W				
R804	1-249-429-11	CARBON	10K 5% 1/4W				
R805	1-247-899-11	CARBON	680K 5% 1/4W				
R806	1-247-897-11	CARBON	560K 5% 1/4W				
R807	1-249-433-11	CARBON	22K 5% 1/4W				
R808	1-259-378-11	CARBON	3.3M 5% 1/6W				
R809	1-259-377-11	CARBON	2.2M 5% 1/6W				
R810	1-249-385-11	CARBON	2.2 5% 1/4W				
RV151	1-238-055-11	RES, ADJ, CARBON 100K					
RV152	1-238-055-11	RES, ADJ, CARBON 100K					
RV153	1-238-055-11	RES, ADJ, CARBON 100K					
RV154	1-238-054-11	RES, ADJ, CARBON 50K					
RV155	1-228-994-00	RES, ADJ, CARBON 10K					
RV201	1-237-619-11	RES, ADJ, CARBON 5K					
RV401	1-238-049-21	RES, VAR, CARBON 2K (CONTR)					
RV451	1-228-790-21	RES, VAR, CARBON 50K (TONE)					
RV452	1-228-121-21	RES, VAR, CARBON 10K (VOLUME)					
RV501	1-228-994-00	RES, ADJ, CARBON 10K					
RV551	1-238-122-11	RES, ADJ, CARBON 500					
RV552	1-238-050-21	RES, VAR, CARBON 100K (V-HOLD)					

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Audio Group

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